

(54) Title of the invention : DESIGN AND FABRICATION PROTOTYPE OF BIOGAS DIGESTER FOR ANAEROBIC DIGESTION PROCESS TO PREDICT METHANE

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(57) Abstract :

The greatest challenge of the world facing today is solid waste management. It became an unsolvable solution in many, developing countries. One way of converting the solid waste into valuable energy is by means of organic segmentation of waste without affecting the environment is by the method of anaerobic digestion. Anaerobic digestion is the process in which the organic substance is converted into a mixture of bio-gas by the decomposition of microorganism. In that bio gas a valuable alternate renewable energy is extracted is methane. Today there is a lot of economic barrier in constructing, maintaining and monitoring the process of the digester. Increase or decrease in organic matter of the feed stock inside the digester may increase in production of the acids and further results in less yield of gas. In order to maintain the pH level from 6.8 to 7.2 during maximum gas yield and constant temperature throughout the experimental work certain monitoring devices are essential. Hence an attempt was made through the lab-scale installation with the above-mentioned sensors.

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